
4.0 FORESEEABLE EFFECTS

This section of the EA assesses potential foreseeable effects associated with the Proposed Action. Potential impacts are addressed in the context of the scope of the Proposed Action, as described in Section 2.0, and in consideration of the potentially existing environment, as characterized in Section 3.0.

4.1 EARTH RESOURCES

4.1.1 Evaluation Criteria

Impacts to soils are usually considered to occur when there is some surface disturbance that would remove vegetation, resulting in bare soil that would be subject to loss and transport through wind and water erosion. Soils are often considered when their characteristics would affect land use decisions and for their potential to affect other resources.

4.1.2 Impacts

4.1.2.1 Proposed Action

The Proposed Action would not result in surface disturbance, other than the minor temporary disturbance required to install fencing. Care should be taken to minimize damage to soil-protecting vegetation when using the land for grazing or driving over the soils. However, there would be no significant impacts to soils or geology as a result of the Proposed Action. Increased use of ammunitions would contribute to accumulations of bullet debris and lead in the soil, particularly in the firing range berms. However, lead would precipitate out of solution in the alkaline Reagan loam soils located at the firing range (USEPA 2001). Potential development of oil and gas leases on land transferred to the state could require surface disturbing activities. These would be minor, and environmental assessment would be required of any applications to drill.

4.1.2.2 No Action Alternative

Under this alternative, new fencing would not be constructed, so there would be no surface disturbance that would result in impacts to soils and geology. There would be no change in firing range activities.

4.1.2.3 Cumulative Impacts

There may be future development of oil and gas facilities in the vicinity of FLETC that would result in surface disturbance. Because this activity is regulated by state and Federal laws and policies that require mitigation of soil erosion, no significant cumulative impacts are anticipated.

4.2 MINERAL RESOURCES

4.2.1 Evaluation Criteria

Impacts to mineral resources occur when areas are withdrawn from productive use or closed to leasing. The analysis considers the potential loss of mineral production or access, as a portion of the overall resource in the region.

4.2.2 Impacts

4.2.2.1 Proposed Action

Under the Proposed Action, mineral estates would be exchanged or transferred along with the surface mineral estate. In accord with its mandate to generate revenues, the SLO would allow future mineral leasing on the lands it receives from BLM in the land exchange (T17S, R24E, Section 2) as they have been in the past. No existing mineral leases have been identified for this land, although the land could be leased and developed in the future. Environmental clearance would be part of the approval process for any future drilling applications on this land.

There would be restricted mineral leasing on about 1,920 acres of Federal mineral estate transferred from BLM to FLETC after the land exchange. BLM would continue to manage existing mineral leases subject to valid rights. BLM would process any future applications to drill under the existing terms of the leases. BLM would coordinate with FLETC on specific conditions of approval, such as avoidance of safety areas, cultural sites, or other sensitive area, or limitations on hours of access. Environmental assessment would be part of the approval process for any future applications. Surface disturbance and occupancy may be restricted in some areas.

Transfer of the mineral estate to FLETC could restrict future production on about 1,920 acres. Some fluid mineral pools could be accessible through directional drilling from adjacent lands. With a mineral estate of over four million acres under CFO management (including over three million acres in oil and gas estate), there would be an insignificant reduction in accessible fluid mineral resource. There would be no potential for future environmental impacts from mineral production on 1,040 acres. Land transferred to the State of New Mexico would continue to be available for mineral leasing and sale.

4.2.2.2 No Action Alternative

Under the No Action Alternative, there would be no change to mineral resources. Oil and gas development within existing safety zones would continue to be constrained in existing safety zones due to firing range hazards. Environmental effects would be unchanged.

4.2.2.3 Cumulative Impacts

Mineral resource development in southeastern New Mexico will continue to respond to market demands. Economically accessible resources are likely to be developed in the future. The Proposed Action would contribute negligible cumulative effects on the environment in combination with other future development.

4.3 WATER RESOURCES

4.3.1 Evaluation Criteria

Potential impacts to water resources generally result from actions that cause surface disturbance resulting in erosion and sedimentation, increased stormwater runoff caused by more impervious surface areas, or the use of materials that could leach through the soil into the groundwater or be transported into arroyos or streams through soil erosion.

4.3.2 Impacts

4.3.2.1 Proposed Action

While the soils have the potential for erosion if they are disturbed, minimal surface disturbance and very slightly increased impervious surface area from fence construction under the Proposed Action would not cause any appreciable erosion. Most of the soils have moderately slow permeability or have a layer that would minimize the potential for lead to leach into the groundwater. For this reason, and because no actions are proposed that would result in pollutant spills, implementing this alternative would not result in impacts to groundwater. No impacts to floodplains or waters of the U.S. would result from minor disturbance for new fence posts. The fence itself would not constrain movement of water. No significant impacts to water quality or quantity would result from the Proposed Action. The ESA recommends that abandoned livestock wells be plugged and properly abandoned to prevent them from acting as conduits for possible groundwater contamination (EMI 2001). No permit under Section 404 would be required.

4.3.2.2 No Action Alternative

There would be no change in water quality or quantity under the No Action Alternative because no changes in land use or activities would occur.

4.3.2.3 Cumulative Impacts

No major construction projects are known to be planned in the vicinity of the transferred land so no changes in water quality or quantity are anticipated.

4.4 AIR QUALITY

4.4.1 Evaluation Criteria

Criteria for evaluating air quality impacts are based on whether the actions proposed would result in non-attainment of the Federal, state, and local air pollution standards and regulations.

4.4.2 Impacts

4.4.2.1 Proposed Action

Eddy County is considered in attainment for all air quality standards. Minimal ground disturbance for constructing a perimeter fence under the Proposed Action would generate a minor amount of dust and vehicle emissions, but the dust and vehicle emissions would be temporary and would not cause any change to attainment status. Increased use of outdoor firing ranges would not contribute to any exceedance of regulated air quality standards.

4.4.2.2 No Action Alternative

The No Action alternative would cause no impacts to air quality because there would be no change in land use.

4.4.2.3 Cumulative Impacts

While there are some reported area and point source emissions in Eddy County (AIRData 2001), known projects would not result in changes in attainment of air quality standards.

4.5 BIOLOGICAL RESOURCES

4.5.1 Evaluation Criteria

Impacts to biological resources are determined based on field surveys and the impacts to biological resources resulting from the land exchange and enlarging the safety fan on FLETC property. As indicated in Section 2.1, approximately 7.5 miles of perimeter fences would be constructed. It is assumed that the amount of land disturbed by this activity would be minimal.

4.5.2 Impacts

4.5.2.1 Proposed Action

The construction of the perimeter fence in Sections 27, 28, and 35 would result in very little disturbance of the native grassland plant community and associated wildlife habitat. In addition, the very limited amount of ground disturbance is not expected to result in an increase in invasive plants such as the Russian thistle. The pronghorn antelope was not observed during field surveys and this species is not known to occur in the area. However, the grassland habitat in the project area represents potential pronghorn habitat, so it is recommended that the bottom wire of the perimeter fence be smooth to facilitate pronghorn antelope movement should they become reestablished in the area.

Land transferred to the State of New Mexico from BLM in T16S, R24E, Section 2 (see Figure 1.1-2) would continue to be grazed, so the effects of grazing on vegetation and wildlife are not expected to change in this area. As indicated in Section 2.1, Section 27 and parts of Sections 28 and 35 (see Figure 1.1-1) could be grazed until the grazing lease expired in 2004 so the plant communities and wildlife habitat in these areas are not expected to change. Grazing would no longer occur on these 800 acres after 2004, which could result in changes in the plant community structure. The area would continue to be desert grasslands with scattered shrubs, but an increase in ground cover could occur after grazing is discontinued. Evidence for this comes from a preliminary analysis of satellite imagery data of the yucca-grasslands on Otero Mesa, about 80 miles from the project area. That analysis found there was less bare ground and greater vegetative cover in ungrazed than grazed areas (U.S. Army 1999a). In addition, the BLM found that grass cover was less on Otero Mesa than it would have been with reduced or no grazing (BLM 1980). In another study documenting this same trend (Brady et al. 1989), they found that grazed grasslands in two areas of Arizona had 29.2 and 63 percent cover, and after being fenced to exclude livestock for 15 years, the percent cover increased to 85.3 and 85.7 percent, respectively.

These potential changes in vegetative cover could lead to changes in the wildlife community. For example, Jones (1981) found lizard species richness and abundance was greater in lightly grazed than in heavily grazed sites. Some species of birds (horned lark, black-throated sparrow, and northern mockingbird) respond positively to grazing while others (Cassin's sparrow [*Aimophila cassinii*], grasshopper sparrow [*Ammodramus savannarum*], and meadowlarks) respond positively to reduced or no grazing (Bock and Webb 1984, Bock et al. 1993). Other studies have shown that small mammals are more abundant and have higher species diversity in ungrazed areas (Bock et al. 1984, Rosenstock 1996). This indicates that discontinuing grazing may benefit numerous species but also be detrimental to some species of wildlife.

The effects of the Proposed Action on sensitive species would be minimal given the small amount of habitat disturbed by fence construction. Soapstone yuccas with stick nests occur in the area of the north perimeter fence of Sections 27 and 28 (Figure 3.5-1). As indicated in Section 3.5, stick nests are an important component of potential aplomado falcon nesting habitat. The perimeter fence would be aligned to avoid these yuccas and therefore not affect aplomado falcon potential habitat. Discontinuing grazing in Section 27 and parts of Sections 28 and 35 would have mixed effects on sensitive species. The Texas horned lizard, ferruginous hawk, mountain plover, western burrowing owl, loggerhead shrike, and black-tailed prairie dog may benefit from grazing (Bock et al. 1993, Lehman and Allendorf 1987, Knopf and Miller 1994, Saab et al. 1995, and Sager 1996). Baird's sparrow and the aplomado falcon may benefit from discontinued grazing (U.S. Army 1999a). The USFWS completed a field visit to the FLETC site to determine potential effects on endangered aplomado falcons and other Federally-listed or proposed species. As a result of this visit, and recommendations that have been incorporated in this project, the USFWS concurs that the proposed action is not likely to adversely affect these species.

There has been no evidence of animal mortalities due to lead at FLETC. Increased training is not expected to cause impacts to wildlife from firing range debris. However, FLETC would monitor animal fatalities that may be caused from lead ingestion.

4.5.2.2 *No Action Alternative*

The No Action alternative would result in no additional impacts to vegetation, wildlife, and sensitive species. Current land uses would continue, and a perimeter fence would not be constructed. Section 2 on BLM land would remain within the BLM, and grazing would continue to be the primary land use. Section 27 and parts of Sections 28 and 25 would not be fenced, and grazing would continue in these areas also. The potential effects of fencing these areas and excluding livestock as discussed above under the Proposed Action would not occur.

4.5.2.3 *Cumulative Impacts*

Implementation of the Proposed Action is not expected to result in any negative cumulative impacts to biological resources because this action would have very little negative impact on these resources. It could have a slight positive cumulative impact on biological resources because of the withdrawal of approximately 1,280 acres of land from livestock grazing between 1990 and 2004 at the Special Training Complex, which could benefit some species of wildlife. Also, the withdrawal of this land for a safety fan could prevent it from being developed for other purposes in the future.

4.6 CULTURAL RESOURCES

4.6.1 Evaluation Criteria

Cultural resources are subject to review under both Federal and state laws and regulations. Section 106 of the National Historic Preservation Act (NHPA) of 1966 empowers the Advisory Council on Historic Preservation (ACHP) to comment on Federally initiated, licensed, or permitted projects affecting cultural sites listed or eligible for inclusion on the NRHP. Significance evaluation is the process by which resources are assessed relative to NRHP significance criteria for scientific or historic research, for the general public, and for traditional cultural groups. Those cultural resources determined to be significant are protected under the NHPA.

Analysis of impacts to cultural resources considers both direct and indirect impacts. Direct impacts may occur by physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the resource's significance; introducing visual or audible elements that are out of character with the property or alter its setting; or neglecting the resource to the extent that it deteriorates or is destroyed. Direct impacts can be assessed by identifying the types and locations of proposed activity and determining the exact location of cultural resources that could be affected. Indirect impacts result primarily from the effects of project-induced population increases.

4.6.2 Impacts

4.6.2.1 *Proposed Action*

Under the proposed land exchange, no building construction would take place. FLETC would install up to 7.5 miles of perimeter fencing around transferred lands and other parcels, closing the properties to public access. Grazing on 800 acres would be discontinued after the land transfer. The parcels to be transferred are wholly or partially within the current safety fan of the existing firearms training range. This use would continue under the Proposed Action.

Impacts to significant cultural resources (historic properties) are not expected under the Proposed Action. The two historic archaeological sites located on lands associated with the Proposed Action require evaluation for NRHP eligibility. This evaluation, and consultation with the New Mexico SHPO in compliance with Section 106 of the NHPA, would be completed prior the land exchange. The USACE is conducting coordination with the SHPO and appropriate Native American groups. Neither site is located where new fence would be installed, and no impact would result from passive use as a safety zone.

4.6.2.2 *No Action Alternative*

Under the No Action Alternative, the land exchanges would not take place. Grazing would continue, and lands would continue to be managed by Federal and state agencies. No impacts to cultural resources are expected under this alternative.

4.6.2.3 *Cumulative Impacts*

Cumulative impacts to cultural resources are not expected under the Proposed Action.

4.7 AESTHETICS

4.7.1 Evaluation Criteria

Effects on visual resources are assessed according to the potential for visual modification of the landscape from proposed activities, considering the visual resources value of the area. Changes in noise levels that may result from proposed activities are examined for compatibility with recommended noise levels for adjacent land uses.

4.7.2 Impacts

4.7.2.1 *Proposed Action*

Construction of fences under the Proposed Action would have little effect on the overall landscape, and would be similar to existing elements in the surrounding context. In some locations, new fence would replace old pasture fences and would not add new visual elements. The type of five-strand wire fencing

proposed is not conspicuous in the middle to distant landscape and is only noticeable at closer viewing. There are no sensitive visual resources or viewing locations in the surrounding areas, therefore, the potential for impact is negligible.

There would be no change in the type of operations at the Special Training Complex under the Proposed Action, therefore, noise conditions would not change. Students and instructors wear protective headwear to minimize noise, in accordance with OSHA standards. There may be a few truck trips on the periphery of the property during fence construction, but these would be temporary and not contribute to higher noise levels.

4.7.2.2 *No Action Alternative*

There would be no change and no impact to visual or noise conditions under this alternative.

4.7.2.3 *Cumulative Impacts*

Future uses and development of the subject lands could include oil and gas production. Vehicular traffic and compressors can generate noise at well site locations. Impacts would be identified for specific sites, and suitable noise reducing measures would be identified for any future proposals. Overall, cumulative noise levels from operations of the Special Training Complex are expected to remain very low in the area.

4.8 HUMAN HEALTH AND SAFETY

4.8.1 Evaluation Criteria

The elements of the Proposed Action and No Action alternative with potential to affect health and safety are evaluated relative to the degree to which the action increases or decreases safety risks to the public, personnel, or property.

4.8.2 Impacts

4.8.2.1 *Proposed Action*

Under the Proposed Action, the land acquired by FLETC would be used as an expanded safety zone for proposed rifle training. All areas within potential firing distance from the ranges would be under FLETC control. Since the area would be fenced and signs posted to prohibit access to areas with potential safety hazards from firing ranges, injury from these uses would be avoided. Also, the surrounding area is essentially isolated. Persons associated with ranching and some oil and gas operations would be aware of FLETC activities. Unauthorized access by members of the public is not currently an issue and is not expected to be a problem in the future. The expansion of training capabilities at FLETC in a safe and controlled environment would allow improved training of our nation's law enforcement personnel. This would have an important indirect benefit for homeland security at all levels.

Accumulation of lead in firing range berms is expected from proposed increase firearms training. However, potential risks to human health and safety from lead are estimated to be low, as described in Section 3.8.2. FLETC would comply with USEPA regulations for disposal of waste streams generated by firearms use. Inhalation of lead and gunpowder residues is not considered a concern at outdoor ranges, since facilities are exposed to open air flow and indoor/outdoor ranges are well ventilated (USACE 2000).

No safety issues or impacts would result from the transfer of BLM lands to the state of New Mexico.

4.8.2.2 No Action Alternative

Under the No Action alternative, munitions with longer firing distances would not be used. Implementation of FLETC's Safety Program would continue to safeguard safety and health of personnel, students, and the public. As described above, ongoing activities at the shooting ranges are not likely to pose risks to human health and safety.

4.8.2.3 Cumulative Impacts

Cumulative impacts would be similar to the Proposed Action. In combination with ongoing training, the potential for long-term accumulation of lead and other metals in the soil could occur more rapidly with increased training. However, site conditions minimize the health risk associated with these uses. Also, final closure requirements would ensure that soil levels are safe for future uses.

4.9 LAND USE AND ACCESS

4.9.1 Evaluation Criteria

Land use impacts can result if an action displaces an existing legitimate use (that is lawful, suitable, and/or permitted), or reduces the suitability of an area for its current, designated or formally planned use. In addition, a proposed activity may be incompatible with local plans and regulations that provide for orderly development to protect the general welfare of the public, or conflict with management objectives of a Federal or state agency of an affected area. Land use development would need to comply with Federal and state environmental laws and regulations.

4.9.2 Impacts

4.9.2.1 Proposed Action

Land Use

Federal Land. The Proposed Action involves a change in land status on 1,480 acres of Federal land surface and 640 acres of Federally reserved mineral estate. Disposal of these lands is consistent with the lands program for the CFO RMP. Future revisions to the RMP would incorporate administrative boundary changes of this action, but are not required in order to process the land transaction.

There would be no change in land use on the 640 acres of land selected for exchange with the State of New Mexico (T16S, R24E, Section 2). Surface improvements and mineral estate would also be transferred to the state. The state would continue to issue any associated ROWs or permits for amenities and resources. Existing grazing permits would be honored until they expire, after which the SLO intends to offer a grazing lease. Although there is currently no mineral leasing and production, the state would keep them available for this use.

On the remaining 840 acres, certain existing public uses would be affected. There would be no change in management of existing mineral leases on 840 acres of BLM land that would be transferred to FLETC. Leases would continue until their expiration date or other terminating condition. BLM would process applications to drill in coordination with FLETC. Conditions of approval on future applications would be determined based on site-specific parameters in order to avoid environmentally sensitive or unsafe areas. These conditions could include directional drilling, constraints on hours of access, or other restrictions, such as No Surface Occupancy. Environmental assessment of future applications would be required prior to approval. FLETC will work with BLM on any new mineral leasing request. Loss of potential mineral

development represents an extremely small portion of the 3.9 million acres available for oil and gas leasing in the CFO. Similarly, withdrawal of this land from salable and locatable mineral uses would represent a minimal loss of regional resources.

The 840 acres would not be available for grazing. This would represent no change on 240 acres of BLM lands within a ROW in Section 3 that have been used by FLETC since 1990. On the remaining 600 acres (in Sections 27 and 28) a reduction in grazing land for about nine to 11 head of cattle would affect one allottee (on the Brangus allotment). However, this represents an insignificant loss in grazing land in the CFO as a whole. FLETC would move one stock tank and allow for continued use of a water pipeline and ranch access road; therefore, grazing operations on the remainder of the allotment would be unaffected.

Construction of a perimeter fence around the transferred lands would preclude access for dispersed recreation, hunting, and other passive public uses. This represents an insignificant loss of land for these activities in the Field Office. The subject lands have no distinctive features for recreation. Similarly, there is no evidence of game, and therefore, the area has little opportunity for game hunting.

State Land. The Proposed Action involves a change in land status of 440 acres of state land. These lands would ultimately be transferred to FLETC for use as an ammunition safety zone. Use of 240 acres of this land that is currently leased to FLETC (in Sections 33 and 34) for an ammunition safety zone would not change. This area has been fenced and has not been leased for grazing for the last five years, nor has there been public access to these areas. After the state grazing lease expires on the remaining 200 acres (in Sections 27 and 28), the land would no longer be available for grazing (of three to four head of cattle), public access for hunting, or for future mineral uses. Impacts to these displaced uses would be similar and additive to those described above.

Access

There would be no public access to the lands transferred to FLETC. A perimeter fence would limit access to controlled or designated entry points onto the Special Training Complex. FLETC would allow the Brangus allotment holder to have access on the road at the north end of Section 27 for ranching operations. No other changes in access would result on subject lands.

4.9.2.2 *No Action Alternative*

There would be no change in land use from existing conditions. There would continue to be public access and use of lands within firearms range safety zones. This would continue to be a safety concern.

There would be no change in access to subject lands or surrounding areas and therefore no impact.

4.9.2.3 *Cumulative Impacts*

There could be future fluid mineral development in areas surrounding the FLETC. Implementation of BLM management direction and state mandates could result in future productive uses. These uses would need to conform with approved plans and comply with existing laws. Urban-type development is not expected in surrounding areas; therefore, the potential for future incompatible development in the project area is minimal.

No cumulative impacts on access are expected. Additional fluid mineral development in the area could increase accessibility to areas around the Special Training Complex.

4.10 SOLID AND HAZARDOUS MATERIALS AND WASTE

4.10.1 Evaluation Criteria

The qualitative assessment of impacts from hazardous materials and solid waste management focuses on how and to what degree the alternatives affect hazardous materials usage and management, hazardous waste generation and management, and waste disposal. A substantial increase in the quantity or toxicity of hazardous substances used or generated would be considered potentially significant. Significant impacts could result if a substantial increase in human health risk or environmental exposure was generated at a level that could not be mitigated to acceptable standards.

4.10.2 Impacts

4.10.2.1 Proposed Action

Hazardous Materials and Wastes

Under the Proposed Action, FLETC would continue to operate as it currently does. FLETC would be responsible for storing, handling and disposing of all materials in accordance with regulations; therefore, no environmental impact is expected.

Increasing the amount of ammunitions used at the firing ranges would contribute to accumulations of lead, copper, and other trace metals in the soil over the long-term, particularly in the berms of the firing ranges. The degree of environmental hazard or risk to human health (e.g., from lead entering drinking water supplies) is currently unknown. However, several factors indicate that it is unlikely that lead would be a concern in the project area. Section 3.8.2 describes local conditions that would inhibit migration of lead. As described in Section 3.10.2, at the time of closure, the range and surrounding area would need to be cleared and meet soil screening levels described in 40 CFR 261.24, for all potential contaminants, including lead (Atencio 2001).

The proposed land transfer would facilitate the proposed use of rifles and extend the area where stray bullets may be deposited. Accumulation of lead and other metals from stray bullets beyond the firing range berms within the expanded safety zones would be very low. This would pose even lower risk to the environment over a long period than in the firing areas themselves.

The remote parcel would continue to be used for grazing and available for future mineral leasing and production. This represents no change from existing conditions and therefore no impact from hazardous materials. Future proposals would be evaluated on a case-by-case basis. Any potential future uses would need to comply with all state and Federal regulations governing hazardous materials and waste, minimizing the potential for adverse impacts on the environment.

Solid Waste

There may be a slight increase in generation of solid waste with increased levels of firearms training. However, this is not expected to significantly impact the capacity of local or regional landfills.

4.10.2.2 No Action Alternative

Under the No Action alternative, there would be no increase in the amount of potentially hazardous materials used or wastes generated at the FLETC compound. The current rate of accumulation of lead,

copper, and other trace metals in the soil would not change. Potential for environmental hazard is considered low, as described in Section 3.8.2.

4.10.2.3 Cumulative Impacts

Cumulative impacts would be similar to those described for the Proposed Action. In combination with current firearms training, proposed increases would accelerate the accumulation of lead, copper, and other trace metals at the firing ranges.

4.11 SOCIOECONOMICS

4.11.1 Evaluation Criteria

The Proposed Action is evaluated based on estimated changes to employment earnings or population dynamics in the local area. If appreciable population changes could result (greater than five percent), then potential secondary effects on public services are considered.

4.11.2 Impacts

4.11.2.1 Proposed Action

Implementation of the Proposed Action would have negligible effect on the regional economy. Very little materials would be purchased for the construction of fencing. No permanent construction or government positions are being created; consequently, there would be no immediate or long-term change in employment or population. No changes to regional socioeconomic patterns or trends would occur.

Under the Proposed Action, there would be a slight reduction in grazing land in the CFO. About 800 acres would no longer be available. This represents an extremely small portion (less than one tenth of one percent) of the 2.2 million acres of Federal grazing land in the CFO (BLM 1988).

However, the land exchange is expected to have some localized impacts on the ranchers using the two affected grazing allotments. Because the State of New Mexico charges a higher rate per AUM than the BLM (\$3.64 compared to \$1.35, respectively), there would be minor increases in costs for the Dry Chapparal allotment holder. Also, the state uses a competitive bidding process, so there is potential that the current rancher could be outbid and lose grazing on the allotment. However, state leasing regulations grant the allottee the same rights as a state grazing lessee to match any competitive lease bid and obtain a new state grazing lease (19 New Mexico Administrative Code 3.8.8.7). Under the Proposed Action, 800 acres would no longer be available for grazing in the Brangus allotment, reducing the number of animals that could be grazed by about 12 to 15 head. This could result in about 10 percent less income generation from this allotment.

The acreage that would be withdrawn from future mineral leasing (1,040 acres), is an insignificant portion of the four million acres of Federal mineral estate in the CFO. Because the value of mineral products varies greatly depending on market conditions, it is not possible to estimate the value of lost fluid minerals revenues from this estate, but it would be very small compared to the district's overall resource. Existing leases would be managed as they are currently. If future applications are made for drilling on existing leases, conditions of approval may slightly increase future development costs or constrain development on five leases.

4.11.2.2 No Action Alternative

Under the No Action Alternative, no land would be exchanged, and consequently the leases, ROW, and existing uses of the subject lands would remain unchanged. No socioeconomic effects would occur from the continuation of existing management.

4.11.2.3 Cumulative Impacts

It is possible in the future that there may be some fluid mineral leasing or oil and gas development in the vicinity of the subject lands. It is unlikely that this development would change grazing in those areas. Due to the absence of impacts under the Proposed Alternative, impacts would most likely be caused by the mineral development activities. Cumulative impacts, therefore, are considered nonexistent.

4.12 ENVIRONMENTAL JUSTICE

4.12.1 Evaluation Criteria

To comply with EO 12898, the most recent information available on ethnicity and poverty status in the ROI have been examined and compared to state and national statistics to determine if the Proposed Action could disproportionately affect any minority or low-income groups. If any resource impacts had been identified, an analysis of the potential for disproportionately high and adverse impacts to minority and low-income populations would be conducted, comparing the demographics of the affected area to those of the region of comparison.

4.12.2 Impacts

4.12.2.1 Proposed Action

No significant environmental impacts would result under the Proposed Action. Therefore, there is no potential to adversely affect either the populations as a whole or any minority or low-income persons. Particular economic effects to two ranches could result.

Effects from withdrawal of about 1,920 acres from future mining are not expected to affect local employment or earnings. Therefore, no impact to persons of low-income or minority status would result.

Protection of Children. Due to the absence of schools or housing on the subject lands, no adverse impacts to children resulting from the implementation of the Proposed Action are expected.

4.12.2.2 No Action Alternative

No environmental justice considerations arise from the continuation of existing conditions, because local minority and low-income population demographics are expected to persist under the No Action Alternative.

4.12.2.3 Cumulative Impacts

No cumulative adverse affects on human activities area expected. Community cohesion would not be affected by the land exchange, and no relocations would be required. Conditions that affect minority or low-income persons disproportionately would not be present.

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